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ABSTRACT

This study is based on a concern that secondary education students, when preparing to teach in the broad field of social studies, typically major in a narrowly defined discipline such as psychology, economics, history, or political science. The purpose of this study is twofold: (1) to determine how well students are academically prepared to teach in the broad area of social studies, and (2) to examine students' courses of study to determine patterns of preparation that better prepare them for the student teaching experience. If one assumes that the social studies specialty area examination reflects a broad field of studies, then successful achievement on the test would mean that students are adequately prepared to teach these subjects. However, it is possible that high scores on the National Teacher's Examination (NTE), recorded for the secondary social studies student teachers enrolled in the University of Washington Teacher Education Program, result from completion by these students of nearly twice the required number of courses for the major. Given the results of this study, the rigorous admission requirements for the University of Washington's Teacher Education Program, the preponderance of fifth-year students, and the social studies core requirement, it is reasonable to assume that the narrowly defined academic majors do not present a serious problem for University of Washington students who are preparing to teach in the broader field of social studies. (BZ)

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THE EFFECTIVENESS OF A NARROW SOCIAL SCIENCE MAJOR IN PREPARING STUDENTS TO TEACH IN THE BROAD FIELD OF SOCIAL STUDIES

TEACHER EDUCATION RESEARCH CENTER

Research Report No. 86-5

UNIVERSITY OF WASHINGTON
College of Education
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THE EFFECTIVENESS OF A NARROW SOCIAL SCIENCE MAJOR IN PREPARING STUDENTS TO TEACH IN THE BROAD FIELD OF SOCIAL STUDIES

PURPOSE OF THE STUDY

When preparing for a career in teaching, secondary education students at most universities complete requirements for an academic major, as well as for specified education courses. Teaching assignments are made in the students' specific major field of preparation. However, students at the University of Washington preparing to teach in the broad field of social studies typically major in a narrowly defined discipline such as psychology, economics, history or political science, but may be assigned to a teaching practicum in the more comprehensive subject of social studies.

The purpose of this study is twofold: (1) to determine how well students are academically prepared to teach in the broader social studies assignment, given the specific course requirements of respective, narrowly defined majors, and, (2) to examine students' courses of study to determine patterns of preparation that better prepare students for the student teaching experience.

JUSTIFICATION FOR THE STUDY

The National Association of State Directors of Teacher Education and Certification (NASDTEC) establishes standards for state approval of teacher education. The 1983 NASDTEC recommendations state that individuals preparing to teach social studies attain "a broad understanding of human society and the

environmental and cultural factors which shape and condition life."[1] The program recommendation is for either a subject matter major and supplemental work in another cognate area, or a comprehensive major with a broad base in the social studies.

The narrowly defined academic majors of many colleges and universities may be a liability in achieving a comprehensive social studies program. The "narrowness" of an academic major can be defined as the ratio of specific discipline credits to the total number of credits required by the major. For example, at the University of Washington the history major requires 58 total quarter credits, with 52 credits specifically in history. The resulting percentage (90%) is an index of narrowness for that major. The higher the percentage, the more narrowly defined the major. Unless students take courses outside their specialization or peripherally acquire general knowledge in the broader field, they may be inadequately prepared to teach the more broadly defined pre-college courses offered in junior and senior high schools. Unless additional academic requirements are made of social studies students to broaden their experience, the specialized focus of the major may be a limiting factor.

PROCEDURES OF THE STUDY

For one calendar year, all secondary social studies student teachers (N=16) enrolled in the University of Washington Teacher Education Program took the National Teacher's Examination (NTE) Specialty Area Test at the end of their final quarter.

The Teacher Education Program at the University of Washington has an enrollment limited to 120 secondary students per year. Admission is competitive and standards are rigorous. Students are admitted to the program after they have completed all general education requirements and at least 90% of an approved teaching major. There is no undergraduate major in education at the University of Washington. A minimum grade point average is required at or above the overall undergraduate mean of the Univeristy, computed on the last 60 credits earned prior to admission. Students must also score at or above the 80th percentile (12.9 norms) on the California Achievement Test.

Since the required coursework and the teaching practicum of the Teacher Education Program are quite demanding, a majority of students complete their baccalaureate degree prior to entering the program. In this study, a majority of participating students had already earned their bachelor degrees. Most of the students were classified as fifth year but a few were enrolled in Master's degree programs. Only three of the sixteen social studies students were college seniors at the time of the NTE examination.

The NTE social studies specialty test is designed to measure prospective and practicing teacher's understanding of the content and methods embodied in the social studies curriculum. According to the Educational Testing Service (ETS), the reliability estimates of scores on all National Teacher's Examination specialty tests have an internal consistency coefficient ranging between .85 and .95. To ensure validity of the tests, exam

specifications are derived from practitioners, evaluation of current course materials and textbooks, and review by experts. Level of difficulty and discrimination capability are additional criteria for test question selection.

The NTE specialty exams are required by several states to determine minimum competency for teacher certification. For the purposes of this study, it was assumed that a high score on the social studies specialty test would indicate academic competency in the broad field of social studies, regardless of specific major.

Academic transcripts of all participating students were analyzed for grade point average (GPA) and distribution pattern of coursework. To determine narrowness of preparation, the total credits in the specific academic discipline (e.g. political science, psychology, economics) were counted, as were the number of credits earned in corroborative courses in social sciences. As already pointed out, narrowness of preparation was operationally defined as a ratio of credits earned in the specific discipline to total credits earned in the major field of social sciences. The resulting narrowness scores were compared to a Narrowness Index computed for each major.

Means, standard deviations, and range of scores on the NTE exam were computed for students majoring in each of the four disciplines represented in the sample. Scores for each exam were compared to the national norms. It is important to realize that the NTE national norms are based on the scores of all persons who

took the exam in past three years rather than on a systematically arrived at sample of the entire population. It can be argued, however, that as more persons nationwide take the exam, the mean NTE scores will approach the mean scores of the parent population.

Means and ranges were computed for GPA, total credits earned, and narrowness scores. The NTE scores were correlated with GPA, narrowness of preparation, and total credits earned in the major field. Grade point averages were correlated with narrowness and total credits earned. For each specific discipline represented in the study, score means, percentiles, GPA, narrowness of preparation, and mean number of total credits earned were tabulated.

FINDINGS

Descriptive Data for Social Studies Students

The data collected during the study provide a profile of the final quarter social studies student teacher. Table I summarizes average scores on the NTE specialty exam and the corresponding percentile rankings. Grade point averages for each major and composite averages for the corresponding teaching area are included. For both NTE scores and GPAs, the high-low range of scores is shown.

TABLE I - MEAN NTE SCORES, PERCENTILE RANKINGS AND RANGE OF GPA FOR SOCIAL STUDIES STUDENTS

MAJOR	MEAN NTE SCORES	%-ILE RANK	NTE RANGE: LOW - HIGH	GPA	GPA RANGE: LOW - HIGH
History	686	87		3.35	
Psychology	686	87		3.50	
Economics	690	88		3.34	
Poli Sci	620	64		3.47	
COMBINED	682	85	620 - 770	3.40	2.91 - 3.86

* Ranks are based upon the 1985-86 NTE National Norms.

Data were tabulated for 16 students who took the social studies NTE specialty test. The average NTE score for this group is 682 which corresponds to the 85nd percentile rank, using 1985-86 statistics. The highest score of 770 ranks at the 99th percentile, while the lowest score of 620 is above the national mean of 581 and ranks at the 64th percentile. The standard deviation for the social studies NTE exam is 87 points. The grade point average for the social studies students is 3.40. Grade point averages in this sample range from 2.91 to 3.86 out of a possible 0 to 4.0 range.

Narrowness of Preparation

An analysis of the requirements for each of the represented social science majors was made to determine the minimum quarter credit requirements as well as to define, by major, the narrowness of preparation. Table II gives the minimum quarter credits required for each major, the minimum number of specific

discipline credits, and the expected Narrowness Index, expressed as a percent. The mean number of total credits earned in the major field and corresponding narrowness of preparation was also computed for each major.

TABLE II - QUARTER CREDIT REQUIREMENTS FOR MAJOR FIELD AND CORRESPONDING NARROWNESS INDEX COMPARED TO MEAN NUMBER CREDITS EARNED BY MAJOR AND RESULTING NARROWNESS PERCENT

MAJOR	MINIMUM# MAJOR CREDITS	DISCIPLINE CREDITS	NARROWNESS INDEX*	MEAN # CREDITS EARNED IN MAJOR	NARROWNESS PERCENT
History	58	52	.90	101	62%
Psychology	50	50	1.00	99	66%
Economics	57	45	.79	75	60%
Poli Sci	50	50	1.00	109	60%
COMBINED	NA	NA	NA	99	63%

* Narrowness Index is a ratio of discipline specific credits to total credits required by the major.

The mean number of total credits taken within the field of social studies is 99, as compared to the University of Washington's minimum requirement for total major credits which range from a minimum of 50 to 58 credits. The ratio of discipline credits to total major credits averaged 63%, while the expected ratios of the Narrowness Index range from .79 to 1.00.

In Table III, the required distribution of courses and quarter credits in each major is compared to the mean number of credits earned by University of Washington students. The social studies distribution reflects credits required of the major plus

a defined core of social science courses required for the social studies teaching certificate. To receive an endorsement to teach social studies, individuals must complete coursework in economics, geography, world history, United States history, and Washington State history. In addition, all students in the Teacher Education Program are required to take two courses focusing on socio-ethnic studies. The mean distribution of credits is shown for each social science major.

TABLE III - REQUIRED DISTRIBUTION OF COURSES AND CREDITS COMPARED TO MEAN NUMBER OF CREDITS EARNED BY STUDENTS IN SOCIAL STUDIES

MAJOR	REQUIRED CREDITS*	MEAN NUMBER OF CREDITS EARNED
HISTORY (N=9)		
History	52	59
Economics	3	5
Geography	3	6
Other	0	22
PSYCHOLOGY (N=5)		
Psych	50	70
History	9	18
Geography	3	7
Economics	3	6
ECONOMICS (N=1)		
Economics	45	45
History	9	5
Geography	3	5
Other	0	20
POLITICAL SCI (N=1)		
Poli Sci/Other	50	65/14
History	9	20
Geography	3	5
Economics	3	5

* Required credits = academic major + core course requirements

Correlational Data

Table IV is a set of correlation matrices with the corresponding probability of occurrence identified by asterisks.

TABLE IV - CORRELATION MATRICES FOR NTE SCORES, GPA, NARROWNESS PERCENTAGE, AND TOTAL CREDITS FOR SOCIAL STUDIES

	NTE SCORE	GPA	NARROWNESS PERCENTAGE	TOTAL CREDIT
SCORE	1.00			
GPA	.67**	1.00		
NARROW	.25	.57**	1.00	
TOTAL	-.37	-.48*	-.62**	1.00

* Indicates probability of less than .05
** Indicates probability of less than .01

The correlation between GPA and the NTE scores on the social studies specialty exam was found to be meaningful educationally (r=.67) and significant at the .01 level. A positive correlation (r=.57) was also found at the .01 level of significance between the GPA and the degree of narrowness of preparation. A significant negative correlation (r=-.62) at the .05 level was found between the total number of credits a student earned in the major discipline and the narrowness of preparation. A second significant negative correlation (r=-.48) at the .05 level was found between the total number of credits a student earned in the major discipline and the GPA.

The narrowness of preparation was not found to correlate significantly (r=.25) with NTE scores on the social studies

specialty exam. A negative correlation (r=-.37) was found between total number of credits earned in the major discipline and score on the NTE exam, although the correlation was not statistically significant.

CONCLUSIONS AND DISCUSSION

The initial impetus for this study was based on a concern that students, by studying in academic fields which are more restrictive in scope than the broader instruction at the K - 12 level, may not be adequately prepared for the teaching profession they have chosen. The central question focused on whether or not a rigorous, narrow-degree program would cause subsequent difficulties in the more generalized teaching field.

Although the sample size was small in number, the participants in the study reflect the caliber of student accepted into the Teacher Education Program. All students in the study achieved above the national mean for the social studies specialty area exam. On the average, the students ranked at the 85th percentile. The lowest score ranked in the 64th percentile while the highest score ranked in the 99th percentile.

If one assumes that the social studies specialty area exam reflects the broad field of social studies, then successful achievement on the test would mean that students are adequately prepared to teach these subjects to school children. Given the findings, it would appear that the students tested in this study are well prepared academically to teach the range of courses in

social studies at the secondary school level.

However, it is possible that the high scores on the NTE exam may be the result of the fact that these students completed nearly twice the required number of courses for the major. This finding may be explained by two factors. First, the majority of students in the Teacher Education Program are fifth-year students who received their bachelor's degree prior to program admission. The increased breadth of knowledge that results from completing all undergraduate coursework in advance of program admission appears likely to increase students' chances of scoring well on the NTE exam. Second, all social studies students are required to take a social studies core consisting of at least one course in each of the following areas: Geography, Economics, World History, American History, and Washington State History.

An examination of the correlation matrices in Table IV shows a strong and statistically meaningful relationship between GPA and the NTE scores for the social studies specialty exam. As might be expected, the significant correlation between the narrowness of the preparation and the GPA indicates that students tend to achieve higher grades in their major field of study. Conversely, a significant negative correlation was found between total credits earned in the major and GPA, indicating a tendency for the GPA to decrease as the breadth of topics studied increases. The total number of credits earned in the major was found to be negatively correlated with degree of narrowness of preparation so that as the breadth of increases, the

degree of narrowness decreases.

Although the correlation between NTE score on the social studies specialty exam and the total number of credits earned in the major field was found to be non-significant, the negative direction of the correlation was not anticipated. A possible explanation for this finding may be that because the sample was small and highly homogeneous, any variation among the students could, by chance, affect the direction of the correlation. Thus, a negative correlation between NTE score and total credits earned may simply be an artifact of the study.

Given the results of this study, the rigorous admission requirements for the University of Washington's Teacher Education Program,[2] the preponderance of fifth-year students, and the social studies core requirement, it is reasonable to assume that the narrowly defined academic majors do not present a serious problem for University of Washington students who are preparing to teach in the broader field of social studies. Even though the University does not have a major in the broad field of social studies, students appear to be adequately prepared to teach the subject.

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